

## TABLE OF STRONG ACIDS

Completely Ionized in Water to Give One (or more) Protons per Acid Molecule

|                         |   |
|-------------------------|---|
| HI                      | $\text{H}^+(\text{aq}) + \text{I}^-(\text{aq})$   |
| HBr                     | $\text{H}^+(\text{aq}) + \text{Br}^-(\text{aq})$  |
| $\text{HClO}_4$         | $\text{H}^+(\text{aq}) + \text{ClO}_4^-(\text{aq})$   |
| HCl                     | $\text{H}^+(\text{aq}) + \text{Cl}^-(\text{aq})$  |
| $\text{HClO}_3$         | $\text{H}^+(\text{aq}) + \text{ClO}_3^-(\text{aq})$   |
| $\text{H}_2\text{SO}_4$ | $\text{H}^+(\text{aq}) + \text{HSO}_4^-(\text{aq})$ ( <i><math>\text{HSO}_4^-</math> is a weak acid that contributes additional protons</i> ) |
| $\text{HNO}_3$          | $\text{H}^+(\text{aq}) + \text{NO}_3^-(\text{aq})$  |

## TABLE OF STRONG BASES

Completely Ionized in Water to Give One (or more) Hydroxides per Base Molecule

|                          |   |
|--------------------------|---|
| <b>NaOH</b>              | <b><math>\text{Na}^+(\text{aq}) + \text{OH}^-(\text{aq})</math></b>                   |
| <b>KOH</b>               | <b><math>\text{K}^+(\text{aq}) + \text{OH}^-(\text{aq})</math></b>                    |
| LiOH                     | $\text{Li}^+(\text{aq}) + \text{OH}^-(\text{aq})$                                     |
| RbOH                     | $\text{Rb}^+(\text{aq}) + \text{OH}^-(\text{aq})$                                     |
| CsOH                     | $\text{Cs}^+(\text{aq}) + \text{OH}^-(\text{aq})$                                     |
| $\text{Ca}(\text{OH})_2$ | $\text{Ca}^{2+}(\text{aq}) + 2\text{OH}^-(\text{aq})$ ( <i>but not very soluble</i> ) |
| $\text{Ba}(\text{OH})_2$ | $\text{Ba}^{2+}(\text{aq}) + 2\text{OH}^-(\text{aq})$ ( <i>but not very soluble</i> ) |
| $\text{Sr}(\text{OH})_2$ | $\text{Sr}^{2+}(\text{aq}) + 2\text{OH}^-(\text{aq})$ ( <i>but not very soluble</i> ) |